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PROCEEDINGS



OF THE

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1905
no. 61

FOURTH ANNUAL CONVENTION

OF THE

EASTERN ONTARIO GOOD ROADS ASSOCIATION

HELD IN

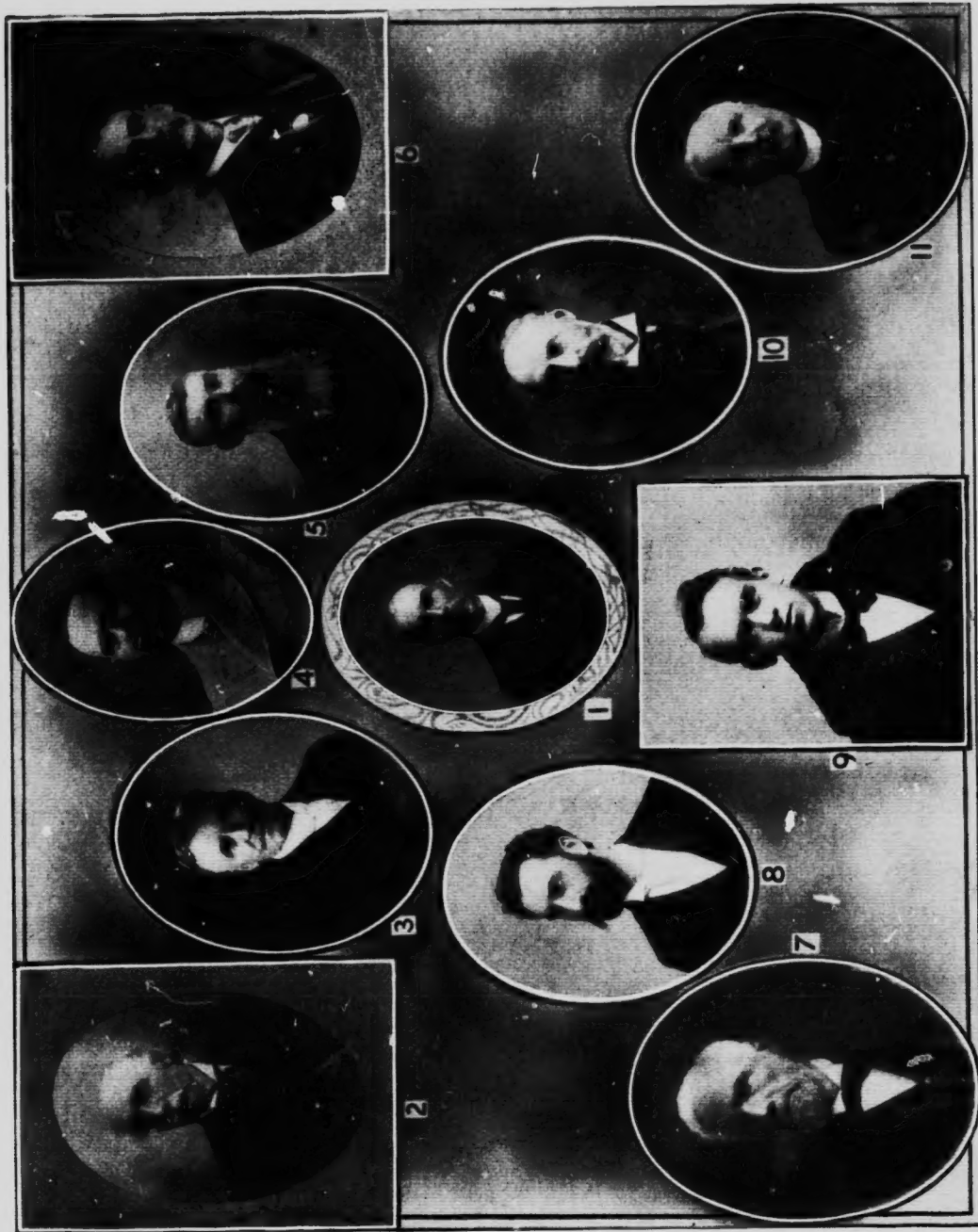
VICTORIA HALL, BROCKVILLE, ONT.

JUNE 28-29, 1905.

WARDEN THOMAS SPROULE,
Frontenac County, President.

H. B. COWAN,
Toronto, Secretary

COUNTY CLERK CHARLES McNAB,
Ottawa, Treasurer



WORKERS IN THE GOOD ROADS CAUSE.

1. THOMAS SPROULE, President. 2. R. CUMMINGS. 3. E. ABBOT JOHNSON. 4. A. W. CAMPBELL. 5. CHAS. McNAB. 6. J. C. BRADLEY.
7. A. FOSTER. 8. J. M. RODGERS. 9. H. V. OWAN, Secretary. 10. A. D. McKEE. 11. R. J. JAY.

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OFFICERS 1905-1906

PRESIDENT

WARDEN THOS. SPROULE,
Westbrook, Ont.

VICE-PRESIDENTS

WARDEN E. BRACKEN, Seeley's Bay,	WARDEN G. L. GROVES, Cornwall Centre,
WARDEN S. DREW, Perritton, Ont.,	WARDEN J. S. LIVINGSTON, Smith's Falls,
WARDEN J. C. BRADLEY, Hazeldean,	WARDEN A. CARSON, Russell.

SECRETARY

H. B. COWAN, Toronto.

ASSISTANT SECRETARY—W. A. McLEAN, Toronto.

TREASURER

COUNTY CLERK CHAS. McNAB, Ottawa.

The Eastern Ontario Good Roads Association

How It Was Formed and a History of Its Work

The Eastern Ontario Good Roads Association is well known by name all over Canada, and its reputation has extended even through the United States, but comparatively few people are informed in regard to the organization of this Association, how it is managed and the work it has done. The Association was formed six years ago as a result of the efforts of a few good roads enthusiasts in Carleton County and its vicinity of Ottawa. At that time not a township in Eastern Ontario had commuted statute labor, not a township had concrete culverts, and not a county had constructed any stone roads. So strong was the opposition on the part of the ratepayers to the expenditure of money for the improvement of roads that few municipal officers cared to advocate the cause of good roads. Hearing that the commutation of statute labor had proved a success in many townships in Western Ontario Messrs. Edward Kidd, ex-M.P., of North Gower, Warden J. C. Bradley, of Hazeldean, Carleton County, and Mr. H. B. Cowan, of Toronto, who was at that time connected with a newspaper at Ottawa, decided to endeavor to introduce the system in Eastern Ontario. Several township councils were approached but all refused to give such a system a trial. The Goulbourne Township Council, in Carleton County, finally agreed to have a vote on the question, providing a petition, asking for the vote and signed by 200 ratepayers was secured. As a result of a personal canvass, made by Warden Bradley, Mr. Cowan, and the late Reeve S. Mann, this petition was secured. A vigorous campaign was immediately started in favor of the commutation system. Meetings were held all through the township, and the new system was finally carried by a majority of 55 votes. It was announced that if the system proved a success in Goulbourne an attempt would be made to introduce it in other townships throughout Eastern Ontario.

Following this a meeting was held in Ottawa for the discussion of good roads matters, and delegates were invited to attend from the other counties in Eastern Ontario east of Kingston. As a result of this meeting, and on motion of County Clerk E. Abbott Johnston, of L'Orignal, the Eastern Ontario Good Roads Association was formed. The first president of the Association was Warden J. C. Bradley, of Carleton County; the secretary Mr. H. B. Cowan, and the treasurer County Clerk Chas. McNab, of Carleton County. Messrs. Cowan and McNab have held office ever since the Association was formed. It was decided that the Executive Committee of the Association should consist of the wardens of the different counties in Eastern Ontario, who should each have the right to nominate three members of their county councils to act on the Board of Management. This form of organization has been continued ever since.

Some of the municipal officers who have taken a leading part in the management of the Association include: County Clerk S. E. Mitchell, and ex-Wardens A. Foster and James Brennan, of Renfrew County; ex-Wardens J. Cram and J. M. Rogers, of Lanark County; R. J. Cummings, of Carleton County; County Clerk E. Abbott Johnston and ex-Warden A. Carson, of Prescott and Russell; ex-Warden J. D. McRae and A. McMillan, of Dundas, Stormont and Glengarry; County Treasurer R. J. Jelly, ex-Warden E. Bracken, County Councillors W. J. Bissell and ex-County Councillor J. B. Wilson, of Leeds and Grenville, and many others.

Three of the most important lines of work that have been carried on by the Association have been: the sending of an expert to all the counties in Eastern Ontario to demonstrate how concrete culverts were constructed, the equipment of a good roads train, which for two years constructed short sample stretches of stone roads in each of the counties in Eastern Ontario, and the furnishing of speakers on good roads subjects for meetings held throughout Eastern Ontario. For several years the Association held its annual meetings at Ottawa, but two years ago it was decided to hold the conventions at other points, and last year the convention was held at Brockville. This year it will be held at Kingston. The conventions of the Association have been attended by good roads authorities from all parts of the United States and Canada.

At first the Association did not receive any assistance from the government, but finally its good work resulted in its being given a government grant of \$200, which grant has been continued from year to year.

A great deal of the excellent work accomplished by the Association has been made possible by the hearty co-operation it has always received from Mr. A. W. Campbell, C.E., of Toronto, the Commissioner of Highways, and the various county councils in the eastern part of the Province. It is felt that the Association has reached a place where its work can be greatly increased, and it is hoped that the various county councils of Eastern Ontario will continue to give their hearty support to the Association in the future as in the past.

OPENING SESSION

Wednesday Morning, June 28th, 1905.

The Fourth Annual Convention of the Eastern Ontario Good Roads Association was held in Victoria Hall, Brockville, June 28-29, 1905. When the morning session of the first day opened, it was found that municipal officers were present from every county in Eastern Ontario, east of Kingston, as well as from many outside points. Among those present were Mr. A. W. Campbell, C. E., of Toronto, Provincial Highway Commissioner; Mr. James H. MacDonald, Hartford, Connecticut, Highway Commissioner for the state of Connecticut; Edward Kidd, ex-M. P., North Gower, Ont.; Warden S. Drew, Perretton, Ont.; Warden J. S. Livingston, Smith's Falls; Warden A. Carson, Russell; Warden J. Bradley, Hazeldean; Warden E. Bracken, Seeley's Bay; Warden James McEwen, of Drayton; County Clerk E. Abbotts, Johnson, L'Orignal; County Clerk S. E. Mitchell, Pembroke; County Clerk W. R. Aylesworth, Belleville; County Clerk C. MacNab, Ottawa; County Clerk W. Richardson, Brockville; County Clerk J. E. Farewell, Whity; ex-Warden A. D. MacRae, Maxville; R. Dargavel, M. L. A., Elgin; County Councillors C. Mohr, Fitzroy; W. J. Bissell, Algonquin; W. Stafford, Lyn; John McCornish, Westport; S. Dunevan, Melcombe; M. J. Connolly, Caintown; Reeve J. D. Johnson, Leeds and Lansdowne Rear; Township Councillors C. E. McCutcheon, Rear Leeds and Lansdowne; E. V. Halladay, South Crosby; Reuben Davis, Elizabethtown; Geo. Corr, Elizabethtown; Thos. Ewing, North Crosby; C. W. Topping, Elgin; Township Clerk A. Murphy, Antrim; Reeve David Bonis, of the Township of Blanshard; H. G. Bleeker, Road Superintendent, Hasting County; Town Councillor Geo. P. Gamble, Brockville; M. F. Earl, Algonquin; Lt.-Col. Jackson, Brockville; R. H. Field, H. H. Beecher and County Treasurer R. J. Jelley, of Brockville; A. W. McLean, of Toronto, Assistant to the Provincial Highway Commissioner; and H. B. Cowan, Toronto, Secretary of the Association. Many other leading municipal men arrived on later trains and were present at the following sessions of the convention.

In the absence, owing to illness, of the President, ex-Warden R. Cummings, of Carleton County, Warden J. C. Bradley, of Hazeldean, was elected chairman. General regret was expressed over the inability of Mr. Cummings to be present.

PRESIDENT'S ADDRESS.

Secretary H. B. Cowan, in the absence of the president, read the president's annual address, which had been forwarded by Mr. Cummings. It was as follows;

TO THE MEMBERS OF THE EASTERN ONTARIO GOOD ROADS ASSOCIATION:

Gentlemen—

Never before has so great interest been shown in the question of the improvement of our public roads as is manifest at present, and therefore this, the fourth annual convention of the Eastern Ontario Good Roads Association, meets under auspicious circumstances. While, to some, it may seem as if progress towards improvement has been slow, we only need to look at conditions as they existed when our Association was formed only four years ago and the conditions as they are to-day to realize what great progress has been made in this comparatively short interval.

When we organized the Eastern Ontario Good Roads Association he was a courageous man who would openly declare himself before the ratepayers in favor of a macadamized system of county roads. To-day we have scores of municipal representatives who have taken this stand, and who, in doing so, feel that they

have the support of a large number of ratepayers. When we started our work not a township in the counties east of Kingston had commuted statute labor. Not a township or county council was constructing cement culverts or even knew how to construct them. There was not a mile of stone road in any of the counties that had not been constructed by the toll road companies, and thousands of farmers had not seen a road grader, much less a stone crusher. As a result of the work of the expert our Association sent through Eastern Ontario some four years ago, who constructed sample concrete culverts in the different counties, we now have many men building these culverts for the municipalities throughout Eastern Ontario. Fully one hundred municipalities, if not more, are using concrete culverts exclusively, and in these municipalities the constant repairs required on the roads where the wooden culverts were used, are now largely a thing of the past, while the saving to the various municipalities has been great.

Six years ago not a township had commuted statute labor. Through the efforts of the Good Roads Association Goulbourne Township, in Carleton County, was led to adopt this system. In Carleton County alone over half the townships have followed the example set by Goulbourne, and all report that they were delighted with the change. The construction of nine sample stretches of stone road in the various counties of Eastern Ontario, which our Association undertook several years ago, had a very beneficial effect. Some of these stretches of road, I understand, have not lasted as well as some expected they would, but this has been largely due to the fact that the municipalities in which they were made had not the appliances for repairing roads properly as soon as they began to show wear, and consequently they have not been as durable as they would have been had they received proper attention at the right time. These stretches of road had the effect of showing thousands of people who have traveled over them that we have outlived the statute labor system of road building, and that if we are to have good roads they must be constructed by modern machinery.

One of the greatest evidences of the progress that is being made towards the construction of stone roads has been afforded by the County of Lanark, which last year expended several thousand dollars for the construction of a leading system of county macadamized roads, and which purposes expending \$100,000 in this work. There is every reason to believe that other counties in Eastern Ontario will soon follow the excellent example set by Lanark County in the same manner that other townships have followed the example of Goulbourne in the commutation of statute labor.

It is true several of our counties, including the one I have been connected with for many years, viz., Carleton County, have met and considered this matter of a system of county roads and have voted against any action being taken. While this is discouraging to most enthusiasts who are anxious to see more rapid progress, still encouragement can be drawn even from our defeat. At these conferences it has been apparent that a majority of the ratepayers are in favor of improving the roads. The only difficulty that has occurred to prevent the construction of these roads has been to determine where they should be built. Our farmers are so anxious to have these roads near their own doors that they cannot wait for their turn, and because roads cannot be built in their immediate vicinity plans for a start in this direction in a few counties have been temporarily frustrated. Now that it is realized that the farmers are anxious to have better roads a way out of these difficulties will soon be found.

The announcement that was made at a recent session of the Legislature that the Government of Ontario purposes assisting the various county councils in the construction of leading systems of roads was heard with pleasure by all who have an interest in the good roads movement. This wise policy on the part of the Provincial Government will result in a greater interest in this work, and will lead many counties to undertake the improvement of their roads.

In deciding last year to hold our annual conventions in different counties I believe our Association acted wisely. By meeting in different counties greater interest in the work of our Association will be aroused and only good can result from the increased enthusiasm that will be created. The representatives from Leeds and Grenville gave us a cordial invitation to meet with them this year, and have apparently left no stone unturned to make our visit an agreeable one. For their many kindnesses we extend them our hearty thanks. In the past the conventions of this Association have been largely conducted under the auspices of the Carleton County Council, whose members have taken a great deal of interest in the work of the Association. Now that it has been decided to hold the annual conventions in the different counties in Eastern Ontario I hope the members of the other county councils will evince the same interest in the work of the Association that the Carleton County Council has in the past, and that they will continue to give the same assistance in making our annual convention the success that they have in the past.

The programme arranged for this convention has been prepared with care. We have secured several of the greatest authorities on the continent on the construction of roads, and with such men present as our friend from across the southern border, Mr. James McDonald, from the state of Connecticut, with our old stand-by and ever popular Highway Commissioner, Mr. A. W. Campbell, and Wardens Quinlan and McEwing from Western Ontario, our convention will prove of great value to us all.

Before we finally settle down to business, I would like to ask those present at this meeting to not hesitate to ask speakers questions on any points that may arise. Experience in the past has shown that the discussions have often been the most profitable parts of our conventions.

I hope that as delegates present from the various county and township councils of Eastern Ontario, you will absorb all the information you can in regard to the improvement of the common roads of our country and that you will not only use this information for your own benefit but that you will take it back to your counties and disseminate it in such a manner that it will lead to a great increase in the interest manifested in the question we all have so much at heart—the improvement of our highways.

On motion of Mr. Kidd, seconded by Mr. McNabb, the president's address was received and ordered to be published.

Messrs. R. J. Jelly and A. Carson were appointed to audit the treasurer's accounts and report at the next morning's session.

ADDRESS OF WELCOME.

Warden E. M. Bracken then read the following address of welcome from the Leeds and Grenville county councils :

TO THE PRESIDENT, OFFICERS AND MEMBERS OF THE EASTERN ONTARIO GOOD ROADS ASSOCIATION :

GENTLEMEN,—I have much pleasure in welcoming your Association to the town of Brockville, county town of the United Counties of Leeds and Grenville, for the purpose of holding your annual convention.

The work you have in view—the improving of the roads of Eastern Ontario—is of the greatest importance to the people of these counties, and I feel assured that your deliberations will result in creating renewed interest in everything pertaining to the improvement of the roads, not only in these counties, but also throughout Eastern Ontario.

Trusting that your visit to this beautiful river town will result, not only in accomplishing much good, but also will be of the most pleasant kind.

On behalf of the United Counties of Leeds and Grenville,

E. M. BRACKEN, Warden.

THE COMMUTATION SYSTEM IN BLANSHARD TOWNSHIP, PERTH COUNTY.

The following paper was then read by Reeve David Bonis, of St. Marys.

Under ordinary circumstances the highways of a municipality afford conclusive evidence of the progressive or unprogressive character of its people. As the appearance of a farm is the reflex of the thrift and intelligence of its owner so are roads, in every section of country, an infallible indication of the skill and industry being put forward by those concerned in their construction. In a section where people are idle and unambitious, its highways afford abundant evidence of this fact; on the other hand, where the people are determined to succeed, facilities for transportation occupy their attention as a means of enhancing their profits. The result is soon noticeable in the improvement in the roads. In the history of every municipality there has been a period when good roads were practically impossible under the conditions existing in new countries. During the primitive stages of this province, development, and for many years subsequent improvement, was a difficult task and we must accept unreservedly the fact that the system adopted in pioneer days for opening and making highways was the best that could have been put in practice under existing circumstances. To have built such roads as then existed by taxes levied, would have been impossible, or at least would have made progress extremely slow. There was little money in circulation to pay taxes, and the only medium current in interchanging commodities was a superfluity of muscle. These qualities were laid under tribute and made available for tax paying purposes thus discharging an important levy that could not have been met in any other way. This was the underlying principle of statute labor. It afforded a settler the opportunity of discharging an important obligation by work that it would have been impossible for him to have contributed the equivalent of in cash. But it must now be patent to all students and observers of municipal practices that a system initiated thirty or forty years ago, excellent though it may have been, cannot be expected to meet the requirements of this advanced age. It must, therefore, be considered a relic of past ages. But, apart from the incongruities arising out of the statute labor system and the methods adopted by municipal councils to arrange a scale of assessment applicable to every rate payer and without any reflection on the honesty and integrity of township officials, I must say such methods are unjust, unfair and contrary to those principles that underly municipal law. The very essence of that law, in matters of taxation and representation, is equality. It is an embodiment of democratic principles reduced to practice and in a form that enters into our every day life. Whenever municipal legislation touches matters of taxation, it contemplates a uniform tax on property direct. There is no provision made for municipalities obtaining revenue by any other means than by that of direct taxation, at least not to any appreciable extent.

Where authority is given to raise funds otherwise than by direct levy on property it will be found that such power is given to protect real estate already contributing to the municipal treasury. Such a scale of statute labor tax as that adopted by nearly all municipalities set these important principles at defiance and is certainly in contravention to all essential ideals of equality. It discriminates between large and small property owners in a manner detrimental to those having small holdings who are least able to protect themselves. Every day's work is held to be equal to \$1. Any scale of statute labor therefore which imposed, we will say three days, or their equivalent, \$3, on a ratepayer assessed at \$1,200, and nine days or \$9 on another ratepayer whose assessment amounts to \$10,000 is unjust. While these figures may not be exactly those adopted by all municipalities for statute labor they are near enough to those adopted by many of them to illustrate the principle on which this tax is imposed. A great wrong exists here, a wrong indefensible, except on the score of expediency, which is a dangerous principle in legislation.

This is not the only bad feature of the system. A line of demarkation, in ascending from one day's work to another, has to be drawn at some fixed amount of taxation, which it may readily be seen, contains a most unfair discrepancy. Those property holders assessed at, say \$1,200, had three days labor; a neighbor assessed at \$1,205 is liable to four days. The line fixing the number of days being drawn at \$1,200, an increase of five dollars, entails an additional day's work. It will be noticed therefore, from these figures, that the statute labor schedule gives the assessor an opportunity to be arbiter of a considerable portion of municipal taxation. By raising a ratepayer's assessment by so small a sum as five dollars near the line of demarkation fixed by by-law he can add to or diminish his taxation one dollar per annum. By this means he can effect the taxation of a municipality to a marked extent. This is a power neither the Assessment nor the Municipal Act ever intended he should control.

These inconsistencies and unfair conditions in working the statute labor system of taxation have been apparent to many municipalities for some time, and it is generally conceded by those giving the matter consideration that the only equitable adjustment to a once useful system is to be found in its complete abolition, root and branch. In Blanshard Township, Perth County, as fairly representing this system of statute labor tax in a modified form, the subjoined scale will illustrate the injustice of this principle.

A ratepayer owning 300 acres of land performs 13 days statute labor.									
"	"	200	"	"	"	10	"	"	"
"	"	100	"	"	"	6	"	"	"
"	"	50	"	"	"	4	"	"	"
House and lot valued at \$500						2	"	"	"

By this scale it is apparent that the burden of taxation falls very much heavier on a poor man than on his rich neighbor. By commutation at a fixed rate per day conditions remain exactly the same as before. During the last two years Blanshard's disbursement for maintenance and improvement of roads under abolition amounted to 60c for each day's labor applied under the statute labor system.

Under commutation we would obtain the following results :

300 acres, 13 days statute labor, 60c per day,	\$7.80
200 " 10 " " " 60c " "	6.00
100 " 6 " " " 60c " "	3.60
50 " 4 " " " 60c " "	2.40
House and lot, 2 " " " 60c " "	1.20

According to this statement, which is the actual experience of commutation, we find a great discrepancy in taxation in favor of the large ratepayer, increasing in proportion as we descend in material wealth. Thus commutation retains all the injustices of the statute labor system in a new and deceptive form. On lines of equality the only adjustment, bearing equally upon all, is the abolition of the system.

By applying this principle, therefore, where all disbursements for roads are taken from the general fund set apart for local improvement, an equal rate being levied and collected on all on the basis of assessment, we find that ratepayers of the township contribute to this most important outlay to that degree that is just and fair to all.

Accordingly we find that the amount levied on :

300 acres is.....	\$10.80
200 acres is.....	7.20
100 acres is.....	3.60
50 acres is.....	1.80
House and lot.....	0.40

These figures must appeal to all as illustrating the practical working of abolition methods in contra distinction to statute labor, and cannot fail to convince those who have given this matter thoughtful and earnest consideration that the disabilities of old age having overtaken this once useful and meritorious system it should now be relieved of further responsibility, and the force of progress be allowed to evolve a new system less temporizing in its results.

A lively discussion followed the reading of this paper, but owing to the official stenographer not having arrived a report of it could not be secured, nor of an interesting address that was given immediately afterwards by Mr. A. W. Campbell, C.E., of Toronto, Provincial Highway Commissioner. The opinion of the convention was that the statute labor system is unjust and ineffective and that it should be abolished.

AFTERNOON SESSION.

Wednesday, June 28.

The principal speaker at the afternoon session was Mr. James H. Macdonald, of Hartford, Connecticut, Highway Commissioner for the State of Connecticut.

Mr. Macdonald was received with enthusiastic applause. He said:

Mr. President and Gentlemen of the Eastern Ontario Good Roads Association—I am always just a shade suspicious when I receive such a hearty welcome from an audience to which I am a stranger ever since hearing a friend tell a story about having been invited to deliver a speech at an Italian meeting at which he understood there was not an English speaking person present. With fear and trembling he spoke about the early days of America, taking each epoch from Washington down. To his surprise they vigorously applauded him time and again, and when he got down to McKinley they fairly raised the roof. When through he said, "Mr. Chairman, you have given me the most agreeable surprise I ever had in my life. I came here not expecting to find an English speaking person and they all understand every point I made." The Chairman smiled, and replied, "Not at all, meeting am packed; me holdie up one finger, clappie; holdie up two fingers, stamp feet; holdie up three fingers, yellie McKinley likee de devil." So when I received the ovation just accorded me I unconsciously looked at the presiding officer to see if he was making signs. (Laughter.)

After listening to the splendid addresses delivered here this morning, followed up by that very plain, matter of fact and convincing talk by your commissioner I feel a little trepidation in coming before you. My friend, Mr. Campbell's reputation has long come across the border, and I may say that I have read a great many reports, signed by highway commissioners, in the work I am engaged in, but it is not enough to hear the theory of road building, I want to see it in practice. There are a whole lot of people who speak about good roads; who write stories about good roads, and who sing songs about good roads, but there are not a great many people in the world who talk common sense and turn out practical ideas of how to make good roads; and I want to say that I never read a report in all my official career but what the report of your commissioner was the peer. (Applause.) And it was due to the persuasiveness of your enterprising secretary that I have been able to clasp hands with my brother commissioner, whom I had never seen, and congratulate him on having victory assured. If people would read that report of your commissioner, not only in Ontario, but in every one of your provinces, and yes, if it would come across the border into our little towns it would do them a lot of good. (Applause.) No movement was ever calculated to do the amount of good for the public at large that this good roads movement will do. (Applause.) The great question of transportation sits at the footstool of every home, of every province in British North America; it sits at the footstool of every

home in every civilized country of the world more money is lost through reckless extravagance and ignorance in the handling of this great question than would pay the national debt of every civilized country in the world. High time to stir up the people. This is not a very large meeting in point of numbers, but there was a spirit of enthusiasm shown to me this morning which augurs well for the movement you have at heart. You have come here with a purpose to learn and to devise plans for the betterment of the province, and the town and the county, and to learn the right way of doing things.

It requires a man who knows the art of road-building to save money in the work. It is exactly as you start you will finish. Get your foundation well built. A splendid thought was emphasized by your commissioner when he said "under-drain the road." Don't be lead astray by the man who says because you cannot lay a macadamized system you cannot lay anything. That is nonsense. And don't import any material if you can get the things required within the border you work in. Make every condition suit the improvement. There is a lot of meat in that. That is not going to impoverish any town in this province. It will take a good many years before you can get a macadamized system throughout the province, but start in by putting in drainage and putting in bridges, and prepare ye the way of the Lord, make His path straight—and bye and bye come along and put on the surface.

The surface is the last thing I think of. Some people say, "Is not the beginning and end of roads the putting down of macadam?" No, that is the end of it; you can do that at any time but you cannot introduce a system of drainage at any time. It took 140 town meetings in my state to make the people clear the cobwebs from their eyes on this subject and I had to go through all the vicissitudes of encounters with "wise men" and kickers. At any town meeting I address my state there were always two classes, and I suppose you meet them here—, an honest inquirer, whom I can detect at once and to whom I love to impart information, and the kicker.

Well, gentlemen, when we started our work in Connecticut ten years ago this coming July, the whole state was given over to the heresay that the roads were good enough. Many did not want state aid for the roads, so the Legislature was a little fearful and only appropriated \$75,000, and a similar amount had to be given by a town to that for which it applied. We got along very nicely, but some counties came in and said there were some people who didn't want roads and would not pay taxes. I travelled up and down the state and finally succeeded in getting the people to take advantage of what was offered them. According to the system some poor places would get their road built together by state aid, or three-quarters of it, and still they would hesitate and say, "When you get any person giving you something for nothing, watch out!" (Laughter.) So it was that it took some time to convince the people of their error and of the advantages of macadam, and I am happy to say today that in the 168 towns in the State of Connecticut they have had constructed in every one a section of highway with state assistance. The whole state is unanimous on it. Got a telephone message since coming here that the Legislature has increased the appropriation this year by \$60,000. allows me \$60,000 more with which to emphasize the splendid ideas of your commissioner for trunk lines, irrespective of the towns.

When your parliament gives one-third the expense, why should you not go ahead and build the roads? Apply the money as your commissioner suggests and by and by you will have a perfect system. Little towns cannot of themselves do the work that is required on the trunk lines; they and the farmers must receive assistance.

No man lives or dies himself—no road belongs to the township itself through which it runs. If it were fenced up within the township and nobody allowed to use it except those in that township, there would be some righteousness in not

assisting towards a trunk line, but everybody uses those roads and in a great many cases they are used more than the roads in towns. I was amazed at hearing about the system of statute labor here. They call it spring cleaning time and fall cleaning time; I call that fall and spring stealing time. We have had that system in some places. I remember one place where a young man who earned \$5 a day at his business owed taxes to the extent of \$1.50. When the collector went around, he asked him if he could not work it out. The collector said yes. So he worked the next day and got a receipt for it. The young man told me afterwards that while he was worth \$5 a day at his own business he wasn't worth thirty cents at at road work, and the losses to the township by his work was the difference between 30 cents and the \$1.50 they paid him. (Laughter.) I told the people about that afterwards and they have never had the system since.

The right way is to put your money into the treasury, into a common fund, put men who are wise over its expenditure, and you will be surprised how quickly you will make money. It is a mistake to have too many supervisors over road work. One little town in Connecticut had thirty supervisors and another four, but the one with thirty is too much for the roads. (Laughter.) They have the worst roads in the state; and they make very good side-walks. (Laughter.)

Now, gentlemen, if there is anything in the way of construction you would wish to know or anything pertaining to our system you are perfectly free to ask questions.

Delegate—"What system have your people of loading the gravel on to your wagons—have you any convenient system of loading the gravel on to the wagon—that is where you haul it from a gravel field?"

Mr. Macdonald—"All by manual labor."

Delegate—"By shovelling it in?"

Mr. Macdonald—"Yes. I do not know how you are here with your gravel, but we have very little gravel in our state in its natural condition that is suitable for all courses. We use three courses; the first from one to three inches, the next from one inch to two inches, an inch less in the diameter as we get near the top surface, and we specify that it shall be eighty per cent. gravel; in the last course we do not allow any gravel that will exceed one inch in diameter, and it has to be sixty per cent. gravel. In some places where they do not have stone they crush gravel. Again, in some places they do not have gravel with power of consolidation, so it has to be artificially treated. It will be all stone in other places, but where we do find gravel we prefer it to a macadamized road, because it is cooler; it costs less to build it and less to keep it in repair. In some parts of our state where the travel is not heavy we prefer it to others. It would not pay us to put in an excavator, nor would it pay us to import material. The whole movement all over the world is only in its infancy and we have got to grow with it."

A Delegate—"How do you get the gravel from the gravel bed to the roads?"

Mr. Macdonald—"Bring it out by wagons."

Question—"By horses or steam?"

Mr. Macdonald—"All by horses; we have no traction engines there; the Legislature authorized me to buy two crushers, the idea being that the farmers will fetch the stone to the fences and we will crush it."

Question—"Do you do grading with the traction engine?"

Mr. Macdonald—"We have never used the traction engine in the state. Our state is very rough and rocky in the main and our greatest difficulty is in reducing grades to a minimum. We can hardly get a grade less than five or six per cent., and with such a condition we could not use that satisfactorily."

Question—"Do you use a roller?"

Mr. Macdonald—"Oh, yes, on every macadamized job. If a town has not got a steam roller we loan it one."

Question—"What weight of a roller?"

Mr. Macdonald—"A ten ton roller is heavy enough."

Question—"Drawn with horses?"

Mr. Macdonald—"Oh, no, its own motive power. We have horse rollers that weigh from a couple of tons to 7,500 pounds. We use them in our country towns. I suppose there are fifty steam rollers at work in the state."

Question—"What width do you make your roads?"

Answer—"Never less than twelve feet for the travel path and rarely ever exceeding sixteen, with three feet shoulder and three feet gutter."

Question—"Do you make them that wide in the country?"

Answer—"Never less than 20 feet in width in the smaller towns."

Question—"Do you specify all the roads to be built?"

Answer—"We build on specifications."

Question—"We do not go that far here?"

Answer—"You should."

Question—"Have you any experience in toll roads, and what aid, if any, does the state give to get rid of the tolls?"

Answer—"We have none. I was delighted when I went up King street here and saw an old post where a toll-gate had been, and I said to myself, 'Thank God there are no tolls here.'"

A delegate—"You did not go up far enough. (Laughter.) We have toll roads. The Legislature, however, made a grant to purchase toll roads where desired, but none of the municipalities in this section have taken advantage of it to get rid of the tolls, and I thought perhaps that your state had given greater aid in order to get rid of them."

Mr. Macdonald—"There is not a toll-gate in the State of Connecticut. There are three bridges over which the traveling public have to pay, but I have been trying to get the Legislature to provide means to abolish this, and I hope to succeed. There should be no tax on the farmer from the time he leaves his farm until he gets to the market." (Applause.)

Question—"Do your counties or towns or state own the bridges?"

Answer—"The ownership is divided in a great many cases. As we get along the state should take entire charge of them. They are working along this line now in order that stronger bridges will be put up. The towns can take care of little bridges, but bridges of a large size should come under such supervision as would ensure their proper construction and should not be running at right angles with the road in order to avoid a little extra cost. I think you have done a very wise thing in passing a law to the effect that if the toll-gates collect toll under false pretences—that is, charge for traveling on a road that is in a villainous condition—they shall either put it in good repair or it shall pass out of the hands of the holders. That is a splendid thing."

Question—"What does your state give every year towards your roads?"

Answer—"It comes to about three-quarters of a million dollars. That is very good for a little state of only 5,004 square miles and a population of some 900,000. If there are no more questions, I wish to extend to you, by the request of Governor Henry Roberts, sister country greetings, and to say to you that our hearts beat as

one, and that we are thoughtfully considerate of the older country it is only necessary for me to say that when King Edward was down with a critical illness no more solicitude could be found in any of his domain than was found in the United States, and no hearts responded more gladly in rejoicing for his recovery than those of the people of my country. I thank you for the hearing and greeting given me." (Applause.)

GOOD ROADS MATTERS DISCUSSED.

An invitation was then extended to the delegates to a trip up the river for which the chairman expressed the gratitude of the delegates. Continuing the chairman said:—"I regret one thing and that is after Mr. Campbell addressed the meeting I forgot to ask you if you had any questions you would like to ask him. In fact, I had two questions taken down myself that I would like to ask in regard to the million dollar grant—can the township councils take advantage of that in case the county council refuses?"

Mr. Campbell—"That clause relating to townships has been repealed and now it has to be a county system or nothing; and unless a county system then it must be considered that your county does not desire it. If they only want to secure roads in three townships they can make arrangements with the other townships in which they do not wish to designate roads."

Question—"Were these amendments made last season?"

Mr. Campbell—"Yes, and it is also amended so that you can get one-third of the expenditure which may include your toll-gates."

Question—"Subject to approval of a government engineer?"

Answer—"No, but the plans must be approved by the lieutenant-governor in council."

Mr. Graham—"I would like to hear you on these toll-roads and how we are going to get rid of them."

Mr. Campbell—"I am inclined to think that you could get rid of them easily if you sought fit to adopt the plan that Wentworth or Oxford Counties adopted. In the case of Wentworth County, they laid down a system of county roads. This included all toll-roads. They then referred the value of the roads to arbitration, the county judge being the arbitrator. The amount of money required to take over these roads and to extend the county system of roads into the different townships involved an out-lay of \$132,000. They bought these roads; they improved the balance of the roads by macadamizing them, and they drew \$44,000 from the government. They are going to extend these roads and of course they expect to draw one-third for permanently improving them."

"The County of Oxford adopted a little different plan. They had a perfect net work of toll roads. They did not wish to fix any specification by which their roads should be maintained, nor to fix a standard of efficiency nor in any way to place themselves under obligation to spend more on the roads than required to purchase the toll roads, but the county agreed to spend \$30 a mile on the toll roads acquired. Now, their scheme was not in keeping with the special Act or with any then existing legislation, but they simply laid down a scheme for taking over these toll roads and maintaining them, and they came before the legislature with that scheme and had a By-law endorsed, and they drew a third of the cost of the road and will draw a third of the cost of maintenance. If your country has not been able to do anything so far and if the legislation is not sufficient to meet your requirements, for heaven's sake let us know what you would propose in order to get rid of those toll roads and I believe the Legislature will give you one-third of the cost and approve of your plan if it at all reasonable."

Question—"Did the Government give one-third to the maintenance of the Oxford road?"

Answer—"They will."

Question—"Forever?"

Answer—"There is no time limit ; they expect it will have to be maintained for all time."

Question—"The government pays \$10 a mile?"

Answer—"That is the rate ; but last summer they paid over ; they paid one-third of the toll roads as soon as the cost was determined."

Question—"Take this county, if they pass a by-law to buy up all the toll roads, do I understand we have a precedent that the Legislature would endorse that by-law and pay one-third?"

Answer—"You have that precedent in the case of Oxford, and that by-law is embodied in the statutes."

Question—"Is not Lanark brought in that also?"

Answer—"Lanark County established a system of county roads, including a toll road extending from Perth to Lanark. One-third of the cost of that road was paid at the time, and I think some \$7,000, or one-third of their expenditure, since upon the other part."

Question—"Is there any necessity for a county council to issue a debenture, or can a yearly levy be made to meet the expenditure?"

Answer—"For the purchase of toll road?"

Question—"Or for ordinary roads?"

Answer—"Perhaps Mr. McEwing, Warden of Wellington County, could give you exact information on that."

WELLINGTON COUNTY ROADS.

Warden McEwing—"I must say that so far as the County of Wellington is concerned it issued no debentures for road purposes under this Act. We set aside and spend between \$15,000 and \$20,000 a year for county roads, and we draw a proportion of that under the Act."

Question—"What proportion?"

Answer—"One-third."

Question—"You make a yearly levy for that expenditure?"

Answer—"Yes ; the County of Wellington does not owe a cent for road building or any other purpose, and we do not wish to involve the county in any extra expense."

Question—"Was it spent over the roads equally ; the trouble we find in Stormont is to have the money spent so that each portion will get its share?"

Answer—"Do you mean an equal or proportionate share?"

Question—"A proportionate share?"

Answer—"We had a system of county roads prior to the Good Roads Act. We had 144 miles of county roads. In adopting the provisions of the Good Roads Act we found that some of the municipalities in the county had not a fair share or proportionate of mileage, and we increased the mileage to 170 miles, giving the extra mileage to those municipalities not having a fair share prior to that, and now they get a fair share. That is, we assume additional mileage on the roads leading into market towns, or what Mr. Campbell calls 'trunk roads.'"

Question—"What would be the basis of your distribution of this mileage—by assessment or population—or how do you apportion it?"

Answer—"Not entirely on one or the other. We have the assessed value and the area both together and arrive at a fair basis, considering from both stand points."

Question—"There is one difficulty in our county; we have a section of our roads that every spring is flooded; the under drainage is all right and the ditches all right, and still every spring we have a mile flooded over, and the water washes the stone off the road. What I want to know is if stone put on properly and properly rolled on a road of that kind would withstand the water?"

Mr. Campbell—"Cannot you lower the water?"

Question—"No, we have been trying that—what I wanted to know is if it is well built with sand and stone, will it stand?"

Answer—"What depth of water runs over it?"

Question—"A foot to two feet over about a mile of road?"

Answer—"I consider that stone rolled in properly would not be affected by the current; if the stone is properly consolidated by rolling and the current is not strong it ought to stand."

Question—"Do I understand if you have three townships wanting to make improvements under the Act that they have to be handled by the county council?"

Answer—"Yes. I want to make myself clearly understood on that. Take the County of Renfrew; there are possibly twenty townships in the county and there are only half a dozen or so of those that are fully occupied. If the County of Renfrew wishes to confine their county system to the fully occupied townships, they may designate roads in those townships and then they may make grants to the other townships in consideration of any moneys that would be collected from these through the county levy. I want you to clearly understand the object of this. Now, for instance, in the case of the County of Hastings. Nearly one-half of the townships is fully occupied and settled, and the balance of the townships—perhaps a dozen—are in a rocky district. The older townships do not wish to place themselves under obligations to the new townships for maintaining a county road through each of the townships and consequently they are not asked to designate roads in those townships, but may confine their county system to the older townships and make such arrangements with the new townships as will satisfy them as to any collection of money that the county will make through their county levy which must be made. Now, this affects not only Hastings, Lennox and Addington, but it would affect Leeds and Grenville, and Lanark and Renfrew. The provision was made so as to permit these counties to lay down a system where really required without any injustice to other parts."

Mr. Mohr—"Then the County of Carleton, for instance, cannot receive any government money except under a county road system?"

Answer—"That is the law now."

Question—"Will these roads aided by the government afterwards be maintained by the county or will they revert to township roads?"

Answer—"They must be maintained for all time by the county."

Question—"That is the one of the great difficulties that faces Renfrew County in the settlement of this question?"

Answer—"The reason why Renfrew could not adopt it as first passed was that the older townships did not want to assume county roads in the unbroken districts. The law says that the county council alone can designate the system of improvement and the government will contribute one-third, and that makes it incumbent on the county to maintain them."

Question—"Then the townships can do nothing in themselves?"

Answer—"Nothing."

Question—"In those counties where there are poor sections or townships could not the rest of the county make a grant to them and still draw one-third of the money expended?"

Answer—"If you lay down a system of county roads and would rather make a grant to those townships than assume roads that comes in as part of the expenditure on your county system and will be considered as such."

Question—"Would that township aided get one-third?"

Answer—"No, the county would get one-third; it comes to the county."

Question—"Is that to be submitted to the township for approval?"

Answer—"It must receive the approval of two-thirds of the county."

Question—"Supposing a township would not go into the scheme, would it have a voice in the matter?"

Answer—"They must in order to get something in lieu of their road getting nothing."

Question—"Mr. Campbell referred to Hastings, which is something unlike other counties, in as much as it is forty-two years since they abolished the toll roads, but I would like to ask if the work on our bridges is to be as expenditure on the county system?"

Answer—"Yes."

Question—"When were those amendments made?"

Answer—"At the last session."

Question—"Are they distributed?"

Answer—"Not distributed as yet. The time in which the county may qualify has been extended until January, 1907. There was one question asked here as to whether there was any new machinery or facilities for loading gravel. Where gravel is taken from flat land generally manual labor is employed, but where it is taken from a bank, as is usually the case, as long as you have six or eight feet of a face, the face of the embankment is taken off, a rough platform built out from the centre with a hopper in the middle, and on this the gravel is scraped with scrapers and allowed to fall into the wagon, which is placed underneath. In taking gravel to the roads spreading wagons are being used, and the additional capacity afforded by them materially reduces the cost of hauling."

Question—"What is the basis of valuing a road in taking it over. In cases where toll roads have been expropriated in other counties I would like to know what was the basis of valuing the roads. One of the questions to be dealt with; it valued according to assessment. I think we would object because we would assess them as so much scrap, but I would like to know in what way they arrived at a valuation?"

Mr. Campbell—"I do not think there are any representatives here of counties who have been dealing recently with this, except Mr. McEwing. I find that the arbitrators in reaching the value take into consideration the charter, the earning power of the road and the present value. The present value is the most important feature."

Question—"It struck me as unfair to allow the valuation to be put on it as a going concern when they will not admit it to be assessed as a going concern?"

Mr. McEwing—"It is worth something as a going concern, but I think the major portion of the basis considered by the arbitrators in valuing a toll road is the cost of duplicating that road. As Mr. Campbell says there has also got to be some little estimate placed on the charter; there are vested rights under the charter, but the main basis in arriving at the value is the actual cost of duplicating that road at the present time. I think that is the soundest basis."

Mr. Campbell—"You will find that conflicting evidence will be given in connection with the valuation. Witnesses on one side will go out and measure the quantity of stone and value it altogether different to others who will consider altogether, perhaps, the character of the construction. We make a reduction in the value

where the stone was brought to the road by the people and put on by repeated application, and we make a deduction for imperfect construction, because no road made in that way is a perfectly constructed road."

Lieut.-Col. J. E. Farwell, ex-Clerk of Ontario County, on being next called upon received a hearty ovation. He said—"I may say that some years ago I was sent to Ottawa to see what your Association was doing. I took copious notes of what I heard there, and when I returned and reported some one said, 'Why should all this take place east of Kingston?' and I replied, 'Because they are the wise men of the east.' Then it was wondered if such an organization would grow in the west. It was decided to communicate with different county councils west of Kingston, and in process of time we had the Western Ontario Good Roads Association. We have not done very much except in representing what you have done. We have been able to spread considerable knowledge on the work you have done in doing away with statute labor or commutation of it, and it has had a good effect in our part of the country."

WELLINGTON COUNTY'S STONE ROADS.

The Chairman—"I have now come to the last speaker of the afternoon, Warden James McEwing who will tell you of the experience of Wellington County in building stone roads."

Warden James McEwing—"I may say, gentlemen, I have always much pleasure in meeting with the members of this Good Roads Association because I meet with so many men strongly interested in municipal matters and because I find men here willing and anxious to mend their ways. I do not propose to follow exactly what the programme puts me down for, but along similar lines. It says, 'Experience of Wellington County in building stone roads'; now I propose to talk about some of the lessons learned by Wellington County in building and maintaining stone roads. I think you will agree with me that we are up against conditions in many respects a great deal more strenuous than those in days gone by. I was amused to hear about the roads built in ancient times. The conditions then were altogether different to what we have to face to-day; they had no railways in those days, and all the traffic was on the highways. Now our trunk lines are the railways and it is not necessary to construct the same class of roads as it was then.

"Another feature that we are up against is the climatic conditions; they are altogether different in such countries as Rome to what they are in Ontario, and one of the features in connection with climatic conditions came up this afternoon when it was asked by a delegate how he could prevent flooding on a road in his county and the washing off of the gravel from the road. Most of us know that in the spring, when the frost is going out of the road, the material in it does not adhere very closely together and it does not require much current to wash the surface of the road away. We have had experiences in that line in connection with the approaches to bridges and we have used timber or plank embedded in alongside the gravel and it prevented it from being washed over. I was amused this morning at hearing one of the speakers speaking about placing stone for road purposes and that in his section in many road divisions they placed forty or sixty cord a year. In the section I come from you would not find sixty cord of stone on a ten mile stretch of the roads. There is a variation of conditions and we have to provide other things than stone and do the best we can.

"One of the drawbacks existing as to roads is the difficulty in getting the townships to spend the amount of money necessary to make good roads leading into market towns. I believe that those roads should be built and maintained by the counties' trunk roads leading out four, eight or twelve miles from the market towns. They could be maintained by the county because the county is in a better condition to deal with the work than the local municipalities. In many cases the

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residents of adjoining townships use the roads the most and it is not fair that the township in which they are situated should pay to keep them in good condition—hence, I say, the county should do it.

"Another condition the general public requires, and that is a better road than twenty years ago; another thing, it costs a great deal more to get work done on public roads to-day than ten years ago; material and labor, I think I am safe in saying, are 50 per cent. higher than ten years ago. I was much pleased with the broad lines Mr. Campbell presented in regard to the management of these roads. The chief thing is to start right and whatever money you expend, expend it along the right line. Our experience is that it is very unwise to construct a road-bed too wide because of the difficulty of drainage. Some of those roads built from Owen Sound and the lake to Guelph were thirty-six feet wide, but we find that under modern conditions such a width is unnecessary. Each township is supplied with a market six, eight or ten miles distant, and consequently they do not require the same width on the trunk lines as in days gone by.

"Many of the old roads had ditches dug alongside the road some three or four feet deep. We find these are dangerous and as the municipalities are liable for accidents in ditches more than three feet in depth we thought it unwise to have them, so we went to work and graded the road, and in many cases we are doing away with the old line ditch, making simply a water table to drain from the centre of the road to channels at the side.

"One of the conditions we are up against now is the proper management of the expenditure of money on those roads. Now, I do not know whether it struck the rest of you as it did me, but it was a striking feature in Mr. Campbell's address that one million days statute labor was supposed to be put on the roads of Ontario annually. In addition to that there was about three-quarters of a million dollars cash. There is one and three-quarter million dollars expended on the highways of Ontario annually. Now, if ten per cent. is wasted—and I do not think there is a man here but who will agree that there is—it means \$175,000 wasted in the Province of Ontario each year on road making. Just think of that—over \$175,000 wasted annually through bad management.

"We, in the County of Wellington, are spending \$20,000 a year on county roads—170 miles. Unfortunately, in the wisdom of the council, they decided that the county councillors would oversee that expenditure, let the contracts and draw the specifications. While there may be a few men in a county council who understand a little about road building there are mighty few who have the necessary knowledge to make a success of the work. I am safe in saying that nearly two-thirds of the members are not experts in road building. I think any county in taking up a system of county roads will be wise to appoint a superintendent who will take charge of the whole expenditure, subject of course, to regulations laid down by the county council. I know that most of the members are not elected to the council because of their knowledge of road building, and I think it will pay any county council, or it will pay the taxpayers, to have a competent and efficient man to have the over-sight of that expenditure. The county councillors will look after their own interests, but we want to impress it on the people that the average county councillors are not expert road builders, and that it will pay to employ some man in the position of superintendent who will give the work his attention year after year. The county councils come and go—some do not go as quickly as they should—but there is no permanency in the methods of their work, because they change so often; whereas if there was a good man appointed to oversee the road building he would be retained. The council would certainly consider a man's fitness in making the appointment, because they want full value for the expenditure, and their own election might depend upon having the money properly expended.

"The first thing we found necessary was to give the road a reasonable width and secure proper drainage, and then place the best material available on the sur-

face. There is some difference of opinion as to the best manner of drainage ; we believe that a tile in the centre is not the best method. We find that in the centre of the road the frost goes down deeper in the winter time, especially if there is a period with very little snow, and the water will not go down. If you place your drainage to one or both sides of road-bed you will not suffer from the frost the same as if exposed in the road-bed, because you get better drainage, as there is better delivery. But you want to get a good grade ; not too wide ; grade it narrow and high, so that every third or fourth man you come across will tell you that you are a fool for building it so narrow ; then you will have it pretty near right. That is my experience."

A Delegate—"What width would you make a road?"

Answer—"An ordinary, fairly well traveled road, or a trunk road leading into a market town, between twenty and twenty-six feet; I would make it twenty or twenty-two on a road less traveled, and with a grade of one and a half inches to the foot. You want a little wider road if you have heavier traffic, because there is the more frequent passing of teams, but do not be afraid of using your road machines on the roads, particularly in the spring and fall. It does not cost much ; comb the rough places in and fill up little depressions made by the wagons when the frost is going out and you will save money. In speaking of legislation Mr. Campbell said he thought the time was ripe for the abolition of statute labor law. Well, there is another thing that would contribute very much to the advantage of the man using the highway, and that would be to compel every man going on the highway with a certain weight to have a wagon tire of a certain width. (Applause.) If every man with 1,500 pounds were compelled to have a three-inch tire, and every man with a load over that weight a four-inch tire, you would maintain your roads for at least 20 per cent. less than is spent to-day."

A Delegate—"How can you ascertain the weight?"

Answer—"If you have doubts you can make provisions for having it weighed."

Question—"You would have to have an official?"

Answer—"Not in all cases. If a man knows there is a law and knows that he is going to be compelled to use wide tires he is going to get them."

A Delegate—"It would be well to compel every man on the road, irrespective of weight to have wide tires."

Answer—"I am not going to dictate what exact measure there should be, but there should be something along this line. The heavier the load the wider the tire required. There is no doubt about that, for the narrow tire is the very ruin-ation of our roads. A farmer wants a wide tire. If all wagon tires used on a road are wide they run easily ; they are regular rollers in themselves and they make good road. By having roads like that it is a great saving on the buggies too."

A Delegate—"I agree with what you say, but I would make the front axle shorter."

The Chairman—"I would not agree with that at all ; I would not want too radical a measure by any means. There does seem to be as much interest manifested in keeping roads in good repair in winter as in summer. We have to spend a good deal of money in winter to keep the roads open. In the maintenance of county roads I think it would be well to construct the culverts and bridges with concrete. It may cost less to build them of wood but it will cost more in the long run on account of repairs."

Question—"How do you maintain your road in the winter?"

Answer—"We have an overseer who has charge of six or eight miles ; he lives on the road and in the winter time if the road gets in poor condition his instructions are to go out and put it in first-class condition as far as the elements

will allow. He is empowered to go on it with teams. You must prevent the snow from banking too high ; put the disc harrow on and put the snow-plow to follow it. Sometimes we put a plank on the side of a pair of sleigh runners. It does not cost a great deal, perhaps \$5 or \$10 a mile in the winter time. A man with a team can go over a considerable portion of it in a day."

Question—"What is the reason of widening the sleighs?"

Answer—"Because where the road builds up to a considerable height the horses cannot get along well and crowd each other off the road."

Question—"Did the Legislature pass that Act?"

Answer—"Yes, with variations."

Question—"In our council last week the information we got was that it was killed in committee—the information was from one of the members of the House?"

Answer—"That is not the information I received. It was passed in such shape that it would go in force in all the counties, except in those where the county council passed a by-law exempting that county. I know that it was passed in that way. As it passed, any county council has power to exempt that county by by-law from coming under the operation of the law."

The Chairman—"I asked Mr. Kidd about it and he told me it was that way, that it passed but that it was left optional with any county to exempt itself from its operations."

A Delegate—"A word as to drainage. I do not agree with Mr. McEwing as to the best place to put the tile ; I think the best place is in the centre of the road. We have a road where I put a tile in three feet deep, some five or six years ago, and the road is as sound as a rock to-day. I think the frost has less chance in the centre of the road."

Mr. McEwing—"I do not say that putting it in the centre is not beneficial, but I say the other way is the better way."

On motion the session then adjourned to meet again on Thursday, June 29th (the following morning) at 9.30 a. m. In the evening the delegates were treated to a delightful excursion by boat up the St. Lawrence river.

MORNING SESSION.

Thursday, June 29th.

Upon motion Warden Bracken took the chair, and in opening the meeting he said :

"Gentlemen—I will ask Mayor Stewart, of Brockville, to take a seat on the platform ; he informs me he was absent from the city yesterday, but that he is pleased to be with us to-day."

Hearty applause greeted Mayor Stewart. He said :

"Mr Chairman and Gentlemen of the Good Roads Convention—I appear before you this morning as Mayor of this town of Brockville for the present year, and on behalf of our citizens of all classes I extend to you a cordial welcome to our town. We are always pleased to receive and entertain meetings of this nature, and I think we always succeed in making a good impression of the town upon the delegates. I trust you will be no exception in this regard, and that you will carry away nothing but pleasant remembrances of your stay in our midst."

The Chairman—"We will call upon Warden Bradley, of Carleton County."

Warden Bradley :

"Mr. Chairman and Gentlemen—I did not expect to be called upon this morning, but however, I thank you for the opportunity of saying a few words. We have heard a good deal said about summer roads, that is good roads in the sum-

mer, but we have not heard much about winter roads, and I think you will agree with me that winter roads are just as important for doing hauling in the country as summer roads. And while it is hardly necessary to speak of the advantages of wire fences to prevent drifting and blocking up the roads it will be well to remember that in many places they have the old wooden fences yet, and it would be well for us to remind those people who have them of the advantages of wire fences instead. It would be well, perhaps, if a government bonus were given to encourage the substitution of wire fences for old wooden ones.

"What appears to me to be the most satisfactory fence is the one made partly of wood or logs and partly of wire. Where the wooden fences are altogether removed in places where the winds are high the snow blows off the road, so that in some parts the road is bare and in some parts there is a foot of snow. What gives the best satisfaction is having two boards or logs at the bottom and three rows of wire over that. That will tend to keep the snow on the roads. The great question in the eastern part of the province is to induce the people to widen their sleighs. The width of sleighs used is about three feet. When the snow becomes deep the roads get high, and with the sleighs as they are the horses begin to crowd, and off they go, and it is impossible to draw loads with satisfaction over them. In fact, for the last two years this has been the case to such an extent that there has been more wagoning to the Ottawa markets than for years, the roads being so high and narrow in the winter that they could not bring in their produce to market with any satisfaction. In January and December the days are short, the weather cold, and the people leave their hauling until March, when they encounter the difficulty of the narrow roads. If our sleighs were made four feet wide we would get over that difficulty. We do not want to interfere with city cutters or single rigs, but I think that this convention should pass a resolution and urge upon the Legislature to have it become law, in the eastern counties of the province at any rate, compelling the use of wider sleighs. They might draw a dividing line between counties in the west, where the snow is not so deep, but in the eastern part it should be compulsory.

"As I understand the law as passed last year counties have the power to exempt themselves from the Act. The difficulty is one county will comply with the law and another one will say, 'No, we do not want to go to the expense.' In this way it is likely to give some dissatisfaction, and I believe the manufacturers to-day are at a standstill in order to know what to do. They do not want to manufacture a lot of goods that will not sell, and perhaps in a year or so will have to be changed, and it would be better to have compulsory legislation in the eastern part of the province.

"The only objection raised to the change is the expense. The expense, in my opinion, is very little compared with the advantage. The sleighs have not to be thrown away, they have to be altered only, and it is admitted by many manufacturers that the cost of making the necessary alterations will not exceed \$5 or \$6 each. For a new sleigh there will not be more than \$1 or \$2 difference, and this would be very little compared with the advantages to be gained in bringing this about. Take for instance the work of machinery; we would not think of crowding our horses into three feet; they would not work well that way. Many of my neighbors have told me what I found out myself by experience, that the horses work best at four or four and a half feet; but four feet is wide enough, and cutters will run along fairly well. So at this convention we should pass a resolution asking for legislation to make the law compulsory in counties, at least, in the eastern part of the province." (Applause.)

TREASURER'S STATEMENT.

After a hearty vote of thanks had been extended to the town and county councils for their hearty welcome and hospitality, the treasurer presented his annual report which was as follows :

RECEIPTS.

Balance.....	\$132 46
Government Grant.....	200 00
County of Carleton Grant.....	25 00
	\$357 46

1904

DISBURSEMENTS.

March 19—	Chas. Mohr, attending convention, Toronto.....	\$ 5 50
"	—R. Cummings, attending convention, Toronto.....	5 50
"	—E. A. Johnson.....	3 75
"	—E. Kenrick, expenses, speaker.....	16 10
"	—Typewriting.....	6 89
"	—Free Press, advertisement.....	10 00
"	—Printing.....	5 00
"	—Daniel Quinlan, speaker.....	17 10
"	—H. S. Earle, speaker.....	20 00
"	—Typewriting.....	4 50
"	—H. B. Cowan, expenses.....	12 60
"	—Y.M.C.A., hall rent.....	5 00
"	—Chas. Macnab, treasurer.....	15 00
July 11—	H. P. Hinds, reporter.....	5 00
"	—Citizen, reporter.....	5 00
Nov. 22—	Printing.....	6 57
"	—Journal, advertisement.....	5 00
1905		
Feb. 1—	Telegram.....	0 90
Mar. 2—	Chas. Macnab, treasurer, expense, Brockville.....	6 75
May 9—	Messrs. Mohr and Cummings, tickets.....	26 20
"	—Telegram.....	0 57
May 15—	R. Cummings, expense, Toronto.....	9 96
June 14—	Printing.....	6 00
June 21—	To balance to next year.....	158 57
		\$357 46

CHARLES MACNAB,

Treasurer.

The report was adopted.

Treasurer McNab—"I would like to make a suggestion to the different counties. There may be a probability of the government grant not being continued unless we get our friend, Mr. Campbell, to advocate it very strongly. As it might possibly be withdrawn, however, I would advocate that all the counties in the Eastern Ontario Association make a small grant. It is not very much. Carleton gives \$25, and if all made a like grant, or one of \$20, it would prevent our funds from running short. You know there are always certain expenses to be entailed by these conventions. Under the circumstances we have done the best we could with the money, and although not rich we have done fairly well."

THE FUTURE OF THE ASSOCIATION.

Secretary H. B. Cowan was then called upon to address the meeting on "The Future of Our Association." He said :

" Mr. Chairman and Gentlemen—I am sorry the president is not here because this matter of the future of our Association is an important subject, and I know that Mr. Cummings has been giving it a great deal of consideration during the past year. If you will bear with me I would like to speak a little in regard to the objects of the Association, and then to deal with its future. We have here representatives of each county council in Eastern Ontario. Mr. Cummings in his annual address, read yesterday, explained something about what the Association has done. We have never aimed to get a large attendance at our conventions ; we have confined our membership to the county councils, and have never expected a large attendance, although extending an invitation to the public in general.

" Our Association held its first meeting five years ago in Ottawa, and it has done good work since then. For several years we went on the assumption that the Warden of Carleton County would be the president each year, the wardens of the other counties vice-presidents, and three members of each county council members of the executive. We are a singular Association, inasmuch as we have no paid membership ; we have concluded that every person who had the cause of good roads at heart was a member of our Association, and have counted on them for their support, and not for their quarter of a dollar, and we have been singularly favored in having men as officers who have worked for our cause from the start.

" Our Association was the first to demonstrate in Eastern Ontario how concrete culverts should be constructed, and it gave me pleasure while on a recent visit in Beachburg to see hundreds of tile pipe there made by a man who was taught by the expert sent out by our Association, as was Mr. David Moir, in Lanark County, who is making these culverts for some thirty municipalities. We are able to see, therefore, the results of our work in a most encouraging manner. Last year we felt we were making a mistake in holding the convention every year in Ottawa, and I think we acted wisely in deciding that the convention should come here to Brockville this year.

" In thinking of what the Association might do in the future it has occurred to me it might be well to arrange each year to hold our convention in a different county in the eastern portion of the province. We have limited our operations to the district east of Kingston, and while we used to send invitations to the county councils west of Kingston we have not done that so much since the Western Association was formed. It seems to me that if we decide to move the convention around from county to county the county councils will take greater interest in the work, and will see what we are doing and what we are trying to accomplish.

" Would it not be well for us at this convention to first select our place of meeting and then elect a live president in that place who will see that proper arrangements are made for the next meeting. Much to my regret I am afraid I will have to tender my resignation as secretary. I have been at the work from the start and have enjoyed it immensely. Unfortunately though, I am now out of eastern Ontario ; my headquarters being in Toronto, and my work takes up the whole of my time. In fact, I should not have been here to-day or yesterday—I had to cancel appointments in order to be here. We have been looking for a man to act as secretary, but the trouble is I have never accepted any salary for my work and we have been unable to find any person who will do the work without a salary.

" I would like to see the Association take up a lot of special work. If we could arrange with the Farmers' Institutes to hold good roads meetings in all the townships and arrange meetings at which the commutation of statute labor, for instance, could be discussed great good would be done. Our Association could recommend speakers. In that way we could reach the people. I would like to

hear the opinions of the members of the county councils on this subject, and it might be well to discuss some of these features before electing officers."

The Chairman—"It seems to me that if the secretary drops out it will be a great loss to the good roads movement. We might hear Mr. Campbell on the suggestions."

In response to the invitation Mr. Campbell arose to address the meeting amidst warm applause. He said:

"Not being a member of your Association I do not know as I should say very much on this particular matter. I have attended most of the meetings held under the auspices of the Good Roads Association, the Western Ontario Good Roads Association and this Association, and possibly while there have been meetings larger in number than the one held here this week yet it looks to me as if the Eastern Ontario Good Roads Association is making marvelous progress. I do not know of another subject affecting the interest of the general public that would draw together a more representative body of municipal men of the biggest possible type than has been drawn here to attend this meeting. I do not know how it would be possible for you to institute any sort of organization that can possibly advance the good roads movement to a greater extent than by continuing this Association. I do not think it would be wise at this time, even if we had to increase the present secretary's salary (laughter), to allow him to withdraw; in fact, we might double his salary rather than lose his services. (Renewed laughter.)

"There is an immense amount of work before you, and there is a great deal of work for the secretary. There is the collecting together of such meetings as this, which is quite an effort in itself. The local parties in charge of the work, I am sure, realize to a great extent the difficulty and trouble there is in making arrangements for the reception and entertainment of such a body and yet that is trifling when compared with the active work going on in the way of corresponding with different councils, receiving replies and rebuffs thrown in, and finally drawing up and arranging a programme that will be of interest to your Association.

"Now, sir, I believe you are moving along good lines; I think in eastern Ontario your Association has done a wonderful amount of good work, but you are just now on the threshold of the great good that can be done; you are just beginning to be alive to the situation and to grapple with that question as to whether or not you should commute or abolish statute labor; whether you should hand over to the councils some of your roads or not, and whether or not advantage should be taken of the legislative grant, and many other questions of great importance that have not been settled by yourselves and that must be more closely studied by you as the parties who are going to direct the thought of the people in your respective districts. Unless you cling together and arrive at the best conclusion for each of the counties comprised in this section, and undertake to carry this home and hold meetings in your districts to explain these matters to your people, then this whole effort that has been so loyally and faithfully made by you in the past four or five years will amount to naught. And why should you not continue your organization? Your work is not finished, nor will it be finished in the next half century. It is necessary that this agitation should go on and meetings be held every year, and the more meetings you hold in the school house and the township halls and the more of the people you come into communication with and explain these matters to the greater amount of good is going to come from this Association. (Applause.)

"You speak of some doubt as to what interest our department will take in this matter and whether they will continue the grant of \$200. That is about one-half of your expense, and I have this to say, that if it is not sufficient and if proper representations are made I believe that it will be increased so long as it is shown that you are doing general good with the money expended. We are anxious that the agitation should do good but there is no earthly reason why we should be more

anxious than you should be. You are representing the people the same as we are; you ought to join forces with us and we will do all we can. My opinion is that this has been one of the most successful meetings held in connection with the Ontario Good Roads Associations. I realized this to the fullest extent yesterday when the distinction between commuting and abolishing statute labor gave rise to such enthusiastic discussion. I was pleased to find how cleverly the matter was discussed, showing that you are giving it your close attention, for as each fine point between the different systems was sprung there were men here ready to express valuable opinions upon them and, in fact who could speak on the subject for the balance of the week. My opinion is that your sessions are too short and that not enough time is devoted to the different points in order to thrash them out to an absolute conclusion so that we will go away understanding the purport of each.

"I do not believe that county councils could spend money to better advantage, or that our department could, than to have a fund created that would cover the expense of drawing people together to discuss this question. I believe that many councils would provide for the sending of delegates here at the cost of the municipality, having each delegate properly credentialled to speak for his council; to have the whole council come if necessary, prepared to speak for their municipality; and oblige them to come back and make a separate report, to be published and circulated throughout the county. Let us bring this information in concrete form to the people, suggestions to be made as thought fit, and in a cheap manner have the reports published and printed, so as to go into the hands of every ratepayer. (Applause.) We are not aggressive enough; we are a little too much frightened of the opinion of the people; we are sensitive. I have been at meetings where they would not allow me to explain myself. This was the reception I received in many quarters for years, but people will listen to me now, and yet my opinions have not altered. It is true I have not to go back and seek re-election every year, but I find this: If you take a question like this to your people and call them together at some opportune time and occasion and explain to them where they are to profit in making some changes, get their authority and sanction, and do something of substantial value for them—illustrate to them what benefit can come from these discussions and the information derived from them—you will get the loyal support of the best class of citizens, who will control the balance. What is the use of councillors if they only sit at the board and pass accounts. I would take up some issue with the people which would be of some substantial value to them, and on that stand or fall. It is no disgrace to lose an election. You gain something by awakening the people to what is in their own interest. Keep at your object and you are going to win at last, and bestow a lasting advantage to your community; take every opportunity of going out and doing missionary work which will add a chapter in the municipal history, which each and every one of you are trying to write, to be handed down to your children. (Applause.)

"I say this Association should see fit to work in the most aggressive way and I should like to see every man who has spoken so cleverly in this meeting go out to his district and call good roads meetings, and be known as the 'Good Roads' man in that district—be a crank on the subject, if they wish to call you that, but be careful and studious; know the position you ought to take and fight that to a finish. Good results will follow.

"I am heartily in sympathy with your Association and it would be a great mistake not to continue its good work. It would be difficult to get a more representative and better meeting than you have here. You ought to try and select active, capable and energetic men to fill the offices of the executive and I think it would be a calamity at this particular stage to allow Mr. Cowan, your present energetic, active and capable secretary, notwithstanding the immense amount of work that has been placed upon his shoulders, to withdraw from that position." (Applause.)

Mr. S. E. Mitchell, County Clerk of Renfrew—"I wish we could all be possessed with the aggressive spirit of Mr. Campbell; it is all that is needed. Unquestionably our Association has had difficulties to encounter. The lack of interest in this question has been a great barrier. Until Mr. Campbell's appointment there was no incentive to do anything. Mr. Campbell and Mr. Cowan, the two forces, are just the men who are capable of doing something that will tell. Mr. Cowan is in the position of the man who was running a little postoffice for the honor of the thing and finally the government appointed him postmaster of the district at the 'same salary.' He wrote back and thanked the department for not reducing his salary for he would hate like the devil to have to pay anything. (Laughter.) We wonder that a man should be possessed with so much enthusiasm as to give his time and energy to a cause that reaped him nothing financially, as Mr. Cowan has done. True, the honor is worth something, but honor does not put much bread and butter into the mouth, and I am of opinion that our secretary should receive some emolument.

"I know what Mr. Cowan has done. It is he who has enthused eastern Ontario on this question, and who has brought about the present public opinion in regard to it. There may be a time when this Association will be in a position to show a more tangible appreciation of his work, but in the meantime I think he should receive some consideration. As to Mr. Campbell, he has enlightened the representatives upon the work they ought to do, and I am sure we will all go away the better for hearing his remarks. I think this Association should meet next year in Pembroke. We take a great interest in the question of transportation there, both by highway and water, and we are ready to take our part in the work of this Association."

Mr. W. G. Smith, Dundas, Stormont and Glengarry—"Gentlemen, as a delegate I wish to say a word or two. Mr. Cowan referred to the past of the Association, and I want to bear testimony to the usefulness of the Association in the past. I remember Mr. Cowan coming and asking for a grant of \$300 to illustrate good road making. We looked upon the scheme favorably and we had some sample stretches of good roads made by the Association which have been an object lesson ever since. In our country we took up the question of taking advantage of the government grant, but it was beaten on a tie vote, the warden being against it. At the meeting of the council last week, however, it was recommended that the question be taken up again and I have no doubt it will meet with better results. I believe with Mr. Campbell that this Association is just on the threshold and just at a stage when our work is about to take practical shape. I just want to bear a word of testimony to the services of Mr. Cowan. While he has not received a salary, yet I feel that he made a name for himself in eastern Ontario that will not soon be forgotten." (Applause.)

Mr. Cowan—"I would like to say a word or two in this connection. The fact that I am working for nothing is not because I have not been offered something. Again and again it has been offered me but I have refused, because I hold the view that a man should do something for the cause of the people even though at some little sacrifice to himself. I felt that I could afford to do this for the sake of the work. Your remarks are too appreciative and I do not want you to think that my resignation has to do with the question of salary at all."

Mr. Abbott Johnston—"I have been urged by Mr. Cowan to accept the position but I must decline because we cannot afford to lose Mr. Cowan. A more efficient secretary cannot be found and I trust he will continue to act. I think with Mr. Campbell that the government will continue to help the Association, and that Mr. Cowan will be allowed by his department to devote a portion of his time to the good roads cause of Ontario."

NEXT PLACE OF MEETING.

The selection of a place of meeting for next year was then proceeded with. Mr. McRae extended an invitation on behalf of Cornwall. Dr. Edwards, Clerk of Frontenac County, extended an invitation on behalf of Kingston. Mr. Mitchell extended an invitation on behalf of Pembroke.

On a standing vote the invitation from Kingston was accepted, a motion to that effect being unanimous.

Dr. Edwards—"I am most thankful to the Association for the acceptance of the invitation from Kingston and I assure you will do our utmost to make your meeting there a success."

ELECTION OF OFFICERS.

Upon motion, Warden Thomas Sproule, Frontenac County, was unanimously chosen President for the ensuing year.

Mr. Johnston—"I move that H. B. Cowan be the Secretary and that he receive \$50 a year.—Carried.

Mr. Cowan—"Under the circumstances I am in a position that I cannot very well occupy the office. I have some sixteen public positions which entails work which has to be done; I am Provincial Superintendent of Agricultural Societies and editor and manager of two papers—so that you see that my time is well taken up. However, if you elect Mr. McLean as Assistant-Secretary, I will put him on to the ropes and we will do the best we can."

On motion Mr. W. A. McLean, of Toronto, was elected Assistant Secretary of the Association for the ensuing year.

On motion Mr. Charles Macnab was re-appointed Treasurer.

HASTINGS COUNTY ROADS.

Mr. W. R. Aylsworth, Belleville, County Clerk of Hastings, was next called upon. He said:

"This is the first privilege I have had of attending your Association meetings, and I must say that I am delighted with the proceedings. I certainly got some pointers and information that I regard as valuable, and which I will try to put to good use in the future. As you are all aware, perhaps, Hastings was the first county that abolished toll roads in this province. That was done some forty-six years ago, and they then established a system of county roads, which they have kept up ever since, and the people of Hastings county would have no thought whatever of abolishing the system. We have possibly a few more miles than we ought to have in the county; we have 460 miles adopted as county roads. The work of establishing a county roads system is not all done when you get your proportion out of the government grant. You have the maintenance of the roads afterwards, and we think after years of experience that we have the best system of maintaining roads and bridges that can be devised. After they took over the roads and abolished the toll-gates they undertook the work of building and improving roads by contract. They found that if the contractor was likely to lose money he was going to scamp his work, and it was regarded as too expensive to watch him, so the result is that we have a superintendent of roads and bridges, appointed by the county council at a liberal salary. Under him we have a gang of men, or seven gangs, each one having a foreman, and they have the necessary machinery for their work. We do not have inexperienced men as foremen, and we have found in our county that this is the best way to maintain the roads.

"We spend \$20,000 to \$30,000 a year on roads and bridges in the county. The county is about 120 miles long and about thirty wide, and the longest stretch of county road leads from near the middle of the county to Belleville, and is about

sixty miles. The townships further north have no county roads, but each year the county gives a grant to them to help them maintain their roads and bridges. The maintenance of the roads in the summer has become with us an easier proposition than the getting rid of the snow in the winter. Last winter it was terribly expensive ; it cost us over \$3,000 last winter to break the roads and keep our system of county roads open."

Delegate—" You want the wide sleighs ?"

Mr Aylsworth—" Yes, I am in favor of wide sleighs. The horses crowd too much on roads where the narrow sleigh is used, and I think this convention will do good in this regard. I am glad you are going to Kingston next year. Frontenac requires assistance to get rid of their toll-gates ; they have one road sixteen miles long with no less than four toll-gates, and it is in very bad condition at that."

Delegate—" How much have your county roads cost ?"

Answer—" When they bought the roads and removed the toll-gates they incurred a county liability of over \$200,000. By an agreement with the town of Belleville the county was to have a certain privilege on the market for having taken off the tolls. And since then we have spent a million on them."

Question—" What is your debt in consequence of purchasing them ?"

Answer—" We were free from debt until last year or last spring, when the freshets on the rivers running through the county were so great that they carried away an iron bridge which cost us \$11,000 to replace, and we were making provisions last year as well for a house of refuge. We were free of county debt until we over-drew the bank account, but we had enough money coming from local municipalities to make up for that."

Question—" Outside of these bridges built last year your county has no debt in consequence of making and maintaining the county roads ?"

Answer—" None whatever."

Question—" You say you have spent a million on them ?"

Answer—" We have."

Question—" Why is the county town the objective point for making roads to ?"

Answer—" That was the case forty-six years ago ; it is not the case now."

Question—" It was the case for how many miles of your system ?"

Answer—" For forty miles ; the people drew grain for thirty miles to Belleville. I have seen lines of rigs over a mile long, extending from the harbor clear to the upper bridges in the city. That is all gone now. When the county roads system was established Belleville was the market town for the whole county. We have a railway bonused by the city and county ; bonused in order to improve things ; but that very railway has taken away the trade."

Question—" Since these changed conditions have you extended your system ?"

Answer—" Yes, extended into other places so as to make a complete net work over the front fifty miles."

Question—" Are any floors on the bridges covered with concrete ?"

Answer—" Yes ; we put on one two years ago and one this spring, and both are in good condition. We expect to use concrete for all our culverts and bridges."

Question—" For the flooring ?"

Answer—" Yes ; thirty years ago we put on cedar, but we got it for \$8 a thousand feet then ; now we cannot get good cedar and when we do get cedar at all we have to pay \$22 a thousand for it."

Question—" Had you the opinion of an engineer on any of those bridges covered with concrete ?"

Answer—" Yes, I am an engineer myself."

Question—"Do you think that a bridge built ten or twelve years ago and covered with wood could be made strong enough to put concrete on?"

Answer—"I want to see the bridge before answering that."

Question—"You find the concrete in your culverts and piers a success?"

Answer—Yes. They associated me with our superintendent in the work and I devised concrete piers. They were the first concrete piers there and I had them put up larger than necessary. It was thought that the logs would destroy and knock them down, but they have not; they were built twelve years ago and they are as strong to-day as then; when the logs came down they did not make an indentation in the abutments."

Question—"If not strong enough to carry a concrete flooring could a bridge not be strengthened and made strong enough?"

Answer—"That might be done, there are various ways of strengthening them; you see flat cars strengthened by rods."

This brought the discussion to a close and an adjournment was made until 2 o'clock.

AFTERNOON SESSION.

Thursday, June 29, 1905.

Warden Bracken—"I am sure you are all pleased to have Mr. Macdonald with us again this afternoon. I would ask that Mr. Bissell take the chair for the session." Carried.

Mr. Bissell—"I see on the programme for this afternoon an address by ex-Warden J. M. Rogers, of Perth, but as he is not here I would like to call on Mr. Johnson, reeve of Leeds and Lancaster."

Mr. Johnson:

"Mr. Chairman and Gentlemen—I feel somewhat diffident about speaking before road commissioners and others on the subject of roads, and all I can do is give you an idea of what we have been doing to improve our roads. I am sorry the township councils are not better represented here. The county men are all good men, but it is the township men who have to face the music and answer questions when it comes to nomination. If the townships were better represented the good work done here would go broadcast throughout the country. However, I hope they will see the published reports, with the result that the township officers will have a freer hand to improve the roads.

"As to our township I will say briefly as to what we have been doing. Five years ago we began the statute labor in our county; it was a hard pull to get started. However, we did so, and the next year they were going to shift us all out but they did not do it. We had enough men at our back and we carried the thing out. We divided the county into five sub-divisions, spending in each sub-division the money collected for road purposes, supplemented with grants wherever we saw fit. That is about the basis, and the system is fairly satisfactory. Now we have more commissioners. The difficulty we found in not having enough commissioners was that at certain periods of the year one commissioner could not attend to the whole business. If you could have one commissioner to attend to the whole division it would be better, but it was not practical with us.

"Last year we bought a stone crusher and this year we are breaking stone and grading, I think, pretty successfully. We got the stone for \$2.00 a cord piled where designated by tender and are crushing it by statute labor. The crusher has paid all expenses from the time it has been put on the road. It costs \$1.90 a cord to crush and I think we are managing well. The old system of road work is out of date. I am in favor of better roads, not only for the sake of convenience and comfort, but I think it is a paying investment. With good roads we are going to have better rigs and we will save time, and time is money." (Applause.)

Question—"For how many years does the tender extend?"

Answer—"It was five years ago we started."

Question—"How many commissioners now?"

Answer—"Eleven. We originally had five but we are not able to cover the ground with them. It is hard to depend upon farmers when you want them as there is only a couple of weeks in summer time that you can get them."

Question—"What do you pay your commissioners a day?"

Answer—"Seventeen and one-half cents an hour. We pay the men at work this year on the crusher \$1.50 and some \$1.25, and we hire an engine at \$4.00 a day."

A Delegate—"The work in our county for some time was good but it was hardly satisfactory. There was such a small amount raised in some road divisions that they could not do much with it, and the people were dissatisfied, some saying that they paid money but got no road. Two years ago we started, and we said to the people, 'you get the stone and we will crush it with our crusher.' Last year we crushed two thousand tons, and I think we have more stone piled up in statute labor than if we had the money. The neighbors got together and a great many put up stone for nothing. This year we are still following the same rule, but we have a limit on the amount to be crushed. Did I understand you, Mr. Bissell, to say that it cost you \$1.90 a cord to crush stone?"

Mr. Bissell—"Yes, they crushed three or four piles, and we figured the thing up and we found that it cost perhaps a little over \$1.90."

Delegate—"We pay \$2.70 a cord. However, we furnish nothing, perhaps it is just about the same as \$1.90 in not supplying the crusher."

Mr. Bissell—"To rent a crusher is all right if you can get it when you want it."

Delegate—"We have not found any difficulty about that. The great cry in our township is about abolishing the toll-gates. We have fifteen or sixteen miles of toll road, and we collect a thousand dollars in tolls, and spend about fifteen hundred a year on them. I hope the council will devise some system to abolish them."

Chairman—"I may say in regard to toll roads that there was a deputation waited upon us last week in the county council and asked us to name a committee of the different municipalities of the united counties. We did so and that committee has been here yesterday and to-day, but the reeve has failed to meet us. There has not been more than three Reeves here, so I do not see as there is anything the Leeds and Grenville counties councils can do. We try to abolish the toll-gates, and we thought this a good time to take action, but I do not see that we are going to be able to arrive at any definite understanding just now. But the county councils are ready to enter into a scheme with the different municipalities towards doing away with the toll-gates. I see we have Commissioner Macdonald with us to-day. He gave a very eloquent address yesterday and we would like to hear from him again to-day."

Mr. MacDonald—"From the interest manifested here I think we all feel dignified at being co-laborers on this question. Ever since I have been across here I have been sending up a benediction for your secretary for the delightful privilege enjoyed of being present with you, and I have unconsciously found myself looking down to see whether I was in my patent leather shoes or house slippers I have felt so much at home. (Applause.) You have not got what we have to contend with in Connecticut. We have grade hills 25 to 30 per cent to the hundred. These have to be reduced. We have boulders without number, and in many of our places the old Indian trail of fifteen inches has not been departed from to a very great extent. It may have been widened out by the pack horses and teams coming along, but we have that to take care of; we have the sandy hills and roads of all characters and

conditions to deal with. I have spent \$5,000 in 450 feet just in overcoming a grade. I simply say this by way of encouragement to you, because you have none of these things to contend with.

"You have your water trouble, and so have we. We have to leave the old road often to get to the point of destination as rapidly as possible. Here you do not have that so much. Now, in listening to the discussion yesterday I thought it would be, perhaps, well to say a word about the different kinds of roads we build and how we build them. We have an abundant supply of trap-rock, which is acknowledged to be the best material for road construction. I understand you do not have that in appreciable quantities. Now, we find it necessary in our macadam system to take that stone and crush and sort it. We lay out macadam roads in three courses. But, before we lay a course of stone, the sub-grade or the foundation upon which that stone is to go is excavated so that it will accomodate the three courses, and the same crown fixed for the finished road is to be put on the sub-grade. If we have a five inch grade to the foot we have that five inch grade on our foundation.

"It is rolled down thoroughly, and in the process of grading, if the contractors have not material that will stand, they have to remove it and furnish whatever stone may be necessary to hold it. That makes it obligatory for the contractor to remove all clay or anything that will sink. It is too expensive a work to fool with. I don't care if the superstructure is of gold, if your foundation is weak you have no road. If the bottom is sand I insist that it shall be packed so that the stone will remain on top of the sub-grade and not lose itself in the sub-grade. You cannot break the bond in a macadam road without destroying the whole road, nor can you take the product of any crusher and shake a little gravel over it and say you have a macadam road. It would be no such a thing. John Macadam would turn in his grave if he saw such a road represented as a macadam road; he was too good a Scotchman for that. He didn't have a crusher, but he had the principle of road construction. He gave us the plan, and we would not be worth a button if we did not improve a little in the way of construction.

"To-day when we turn a macadam road over it is as smooth as a billiard table, and I tell you that when you take the principle that John Macadam gave to you, that is to have the foundation equal to that for the best road that can be built.

"The first course is four inches and the next two. All wheel marks and depressions must be taken out, leaving it level and uniform, and no particle of the stone to be dumped from the wagon—all distributed by shovel. And why? You come over to my State and find a wart on the road and investigation will show that the stone was dumped off the cart, causing that wart, and it will stay there until worn out. If you want to build a solid road the stone must be distributed over that road so as to get a uniform road pressure. It cost a whole lot of money to learn that, but it is a fact."

Question—"Have you not got stone spreaders?"

Answer—"We have some, but the principle involved is the same. Our specifications will read that where they use the spreader wagon this is unnecessary, but where they do not have a spreader wagon all the stone must be distributed. It may appear to you that this is a bill of extra expense without return, but it is not. As to the mixing of the small and the large stones together, don't let your Macadam road depend altogether upon screenings for bonding. It is not necessary to have so very much screening to consolidate it; too much screening is not good because that means mud in wet weather and dust in dry. The last thing we do is to pare off the road. Put on your screening, not too much, put them on dry, then roll them in and afterwards apply your sprinkler and work them up until you get a hard finish. Rub them down, that is the way you get the polish. If you do not, the first time it rains it will be all lost. Be determined to put down a good road and take as your motto to guide you 'An honest job at a fair price'—a good

motto for the contractor and for the Council—it will pay everybody. Some people say it is nonsensical to put Telford on the road. We put it down no deeper than eight inches, with the broadest edge of the stone down; we break the joints and drive in the wedges with pick and hammer. On that they put five inches of macadam, four inches wearing surface and an inch of finish, making a thirteen inch road. It is not a question of whether we put down Telford; it is a question of draining in a wet place. In a dry place you would make a mistake with a 13 inch road. I would prefer seven inches of gravel on a five inch macadam foundation; there is a certain amount of elasticity there that does not make so much friction—and where not so much friction you have less wear. It is pliable and porous and makes a good road."

Question—"What kind of material do you use for culverts?"

Answer—"We use stone, and where we cannot get them we use tile. We do not like to use stone if it comes nearer than twelve inches to the top, because it dries and powders, and is a source of trouble. But the tiling is expensive, and in some places they have to plank the tops as in primitive days. But of course we are getting rid of that as fast as we can. These planks are a menace, and are no end of expense. If you compare the real cost of the culverts you will take the tile pipe; it is the cheapest in the long run. In some cases where they have to wait for the macadam system we spend money in making roads of sand and clay, and it is surprising what a good road can be made of sand and clay. Now, gentlemen, let me say in conclusion that I will go back to my state with a most pleasant memory of our meeting here, and I must say that I am delighted with the democratic spirit I have seen here, all for one and one for all, working along for a common purpose." (Applause.)

Mr. N. J. Connolly then moved the following:

"That this Association has heard with delight and profit the address of State Highway Commissioner James H. Macdonald, of Hartford, Conn., and that we tender him our heartiest appreciation for his kind words towards our Sovereign King Edward VII, and we assure him that Canadian feeling and sentiment are equally warm and respectful towards the Chief Magistrate of our Anglo-Saxon neighbors south of the River St. Lawrence.

"It is a great thing," added Mr. Connolly, "that we can rise from our little political feelings and come together as one people. We, in Canada, are always pleased to know of the progress of the country south of the St. Lawrence. We feel that it is one of the older members of the British family that struck out several years ago as a boy who has struck out to make his own living. So we still of the Mother Country are delighted with the progress made by our brothers and sisters across the line, on account of that kinship between us which can never be obliterated. Wherever you see the British and American flags you know that they mean liberty and fair play. I am sure there will be a great harvest reaped from the work of this Association."

Mr. R. J. Jelly—"I take great pleasure in seconding the motion."

Motion carried.

Mr. Macdonald acknowledged in appropriate terms the vote of thanks tendered him, stating that it would give him the greatest pleasure to have any of the members of the Association visit him in Hartford.

Mr. R. J. Jelly, of Leeds, seconded by County Clerk E. Abbott Johnston, moved, "That the members of the Eastern Ontario Good Roads Association desire to express our sincere regret at the absence of our President, ex-Warden Cummings, of Carleton County, and our hope that he will soon recover from the illness which prevented his attendance, and we desire further to express our appreciation of his faithful and efficient services while acting as President of this Association."

The motion was carried, and the Convention was afterwards declared brought to a close.